## **EFFICACY REVIEW**

**PRODUCT:** Advantage Plus 10 for Dogs, Advantage Plus 20 for Dogs,

Advantage Plus 55 for Dogs, Advantage Plus 100 for Dogs

FILE SYMBOL: 11556-REI, 11556-REL, 11556-RET, 11556-RGN

DATE: August 6, 2007

**DP BARCODE:** D342416, D342417, D342418, D342419

**DECISION NUMBER:** 215323, 215314, 215321, 215493

GLP: No

CHEMICAL: Imidacloprid (9.1%)

CHEMICAL NUMBER: 129099

**PURPOSE:** Review data to support the addition of dog lice

(Trichodectes canis)

MRID: 47190401. Doyle, J., Egan, T. (2006) A Controlled

Randomised Study to Evaluate the Efficacy of Advantage Against a Natural Infestation of Dog Lice (Trichodectes canis) Following a Single Topical Administration to Adult Mixed Breed Dogs: Final Study Report. Project Number: 144/914, 75950. Unpublished study prepared by Charles

River Laboratories BioLabs Europe. 130p.

**TEAM REVIEWER:** Kable Bo Davis

EFFICACY REVIEWER: Kable Bo Davis, M.S., Entomologist

**SECONDARY** 

EFFICACY REVIEWER: Joanne Edwards, M.S., Entomologist

## **BACKGROUND:**

Advantage Plus 10, Advantage 20, Advantage 55 and Advantage 100 are ready-to-use spot on treatments for dogs intended for the month long control of fleas and lice. The proposed labels contained the following label claims concerning lice:

- 1. Once-A-Month Topical Treatment for Fleas and Lice
- 2. Kills [(biting) (chewing)] lice
- 3. Kills [(biting) (chewing) lice, which may serve as intermediate hosts for tapeworms (*Dipylidium caninum*)
- 4. Kills [(biting) (chewing)] lice and prevents further infestations

## **DATA REVIEW:**

The following data review is comprised of explanations of materials and methods, and a summation of experimental results containing tables with reformatted data.

47190401. Doyle, J., Egan, T. (2006) A Controlled Randomised Study to Evaluate the Efficacy of Advantage Against a Natural Infestation of Dog Lice (Trichodectes canis) Following a Single Topical Administration to Adult Mixed Breed Dogs: Final Study Report. Project Number: 144/914, 75950. Unpublished study prepared by Charles River Laboratories BioLabs Europe. 130p.

The experimental design consisted of separating 20 dogs into two groups of ten containing both males and females. All dogs included in the study were naturally infested with dog lice (*Trichodectes canis*) and had a minimum of 10 infesting lice. Group 1 acted as a control, while dogs within the second group were treated (via spot treatment) with 0.1 mL/kg bodyweight of Advantage on day 0. Observations on efficacy were taken on days 1, 2, 7, 14, 21, 28 and 36.

## Results:

**Table 1. Lice Counts** 

Group	Animal	Total Number of Lice								
		Day -	Day -	Day 1	Day 2	Day 7	Day 14	Day 21	Day 28	Day 36
Control	1		52	1407	86	92	52	52	95	68
	2		-	77		66	63	72		90
	3	21	29	54	9	3	0	0	0	0
	4	20	80	13	15	1	0	0	0	0
	5	85	44	61	88	64	49	81	85	44
	6	79	36	53	-	80	76	57	83	89
	7		70	61	88	66	59	97	99	81
	8	31	37	32	46	37	16	13	25	42
	9	17-10		- 1	-	99	94	91	75	7/13/9
	10		72	-	-	95	65	65	69	49
Treatment	1	36	29	3	0	0	0	0	0	0
	2	1	67	1	0	0	0	0	0	0
	3	-	74	4	5	0	2	0	0	0
	4		96	16	10	0	0	0	0	0
	5		91	20	6	0	0	0	0	0
	6	-		68	13	0	0	0	0	0
	7	59	47	0	0	0	0	0	0	0
	8		42	22	0	0	0	0	0	0
	9	73	41	1	0	0	0	0	0	0
	10	41	35	4	0	0	0	0	0	0